SELECTIVE ENGAGEMENT OF MOTION INPUT MODES

ABSTRACT

A motion controlled handheld device includes a display having a viewable surface and operable to generate a current image and a gesture database maintaining a plurality of gestures. Each gesture is defined by a motion of the device with respect to a first position of the device. The device includes a gesture mapping database comprising a mapping of each of the gestures to an associated command, a motion detection module operable to detect motion of the device within three dimensions and to identify components of the motion in relation to the viewable surface and a display control module having a first mode of operation and a second mode of operation. The display control module is operable in the first mode of operation to monitor the motion of the device, to determine a location of the device resulting from the motion, and to modify the current image based on the resulting location of the device. The display control module is operable in the second mode of operation to monitor the motion of the device, to track movement of the handheld device using the motion detection module, to compare the tracked movement with the gestures to identify a matching gesture, to identify one of the commands associated with the matching gesture, and to modify the current image based on the identified command. The device also includes a mode selection module operable to detect a mode selection trigger and to switch between the first mode of operation and the second mode of operation in response to detecting the mode selection trigger.